

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Dirk Erickson, Ed Beeman, Thomas L. Pratt, Christiaan Steenbergen,
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Assignee: Dell Products L.P.

Title: Optical Medium Recognition System and Method With an Optical Drive
Having Plural Lasers

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Examiner: Gautam Patel Group Art Unit: 2655

Docket No.: DC-05756 Customer No.: 33438

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Mail Stop Appeal Brief - Patents
Board of Patent Appeals and Interferences
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

APPEAL BRIEF UNDER 37 CFR § 41.37

Dear Sir:

Applicant submits this Appeal Brief pursuant to the Notice of Appeal filed in this case on February 12, 2007. The fee for this Appeal Brief is being submitted electronically via the USPTO EFS. The Board is also authorized to deduct any other amounts required for this appeal brief and to credit any amounts overpaid to Deposit Account. No. 502264.

I. REAL PARTY IN INTEREST - 37 CFR § 41.37(c)(1)(i)

The real party in interest is the assignee, Dell Products, LP as named in the caption above and as evidenced by the assignment set forth at Reel 014748, Frame 0048.

II. RELATED APPEALS AND INTERFERENCES - 37 CFR § 41.37(c)(1)(ii)

Based on information and belief, there are no appeals or interferences that could directly affect or be directly affected by or have a bearing on the decision by the Board of Patent Appeals and Interferences in the pending appeal.

III. STATUS OF CLAIMS - 37 CFR § 41.37(c)(1)(iii)

Claims 1-20 are pending in the application. Claims 1-19 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Publication 2003/0095487 A1 issued to Nishizawa et al. Claim 20 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Publication 2003/0095487 A1 issued to Nishizawa et al. The rejection of claims 1-20 is appealed. Appendix “A” contains the full set of pending claims.

IV. STATUS OF AMENDMENTS - 37 CFR § 41.37(c)(1)(iv)

In a Response to Final Office Action dated January 18, 2007, Applicants submitted an amendment to Claim 5 to address an informality raised by the Examiner. The Examiner did not enter the amendment.

V. SUMMARY OF CLAIMED SUBJECT MATTER - 37 CFR § 41.37(c)(1)(v)

Optical drives that support several types of lasers, such as infrared, red and blue lasers, sometimes use multiple spindle kicks to identify the type of optical medium inserted in the drive, such as CD, DVD and BD media (pg. 2, line 25 – pg. 3, line 7). As recited by Claim 1, an information handling system (Figure 1, element 10) comprises plural processing components (Figure 1, *e.g.*, elements 24, 26, 28) to process information, an optical drive (Figure 1, element 12) having plural lasers (Figure 1, elements 18, 46, 48, 50), each laser associated with a type of optical medium, and an optical medium identification module (Figure 1, element 20) operable to illuminate an optical medium with a first laser to “detect identification information embedded on the optical medium that identifies the optical medium as associated with a second of the plural lasers” (pg. 6, lines 17-31). Claim 10 recites a method for identifying an optical medium comprising selecting a first laser to illuminate the optical medium (Figure 3, element 48), attempting to read identification information associated with a second laser (Figure 3, element 54), initiating the second laser “according to the identification information” if the attempt to read the identification information with the first laser succeeds (Figure 3, element 60), and performing a detection algorithm with the first laser if the attempt fails (Figure 3, element 68; pg. 7, line 17- pg. 8, line 17). Claim 16 recites an optical medium (Figure 1, element 14) comprising a data layer (Figure 1, element 40) readable by a first laser, a protective surface (Figure 1, element 42)

and embedded identification information “disposed for reading by a second laser” identifying the optical medium as associated with the first laser (Figure 1, element 38; pg. 6, lines 17-31).

VI. GROUND S OF REJECTION TO BE REVIEWED ON APPEAL - 37 CFR § 41.37(c)(1)(vi)

Are Claims 1, 10 and 16 properly rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Publication 2003/0095487 A1 issued to Nishizawa et al.

VII. ARGUMENT - 37 CFR § 41.37(c)(1)(vii)

Nishizawa cannot anticipate Claims 1, 10 and 16 because Nishizawa fails to teach, disclose or suggest all elements recited by Claims 1, 10 and 16. Nishizawa does not read identification information to determine an optical medium type but rather looks at focus and tracking errors. Accordingly, Applicants respectfully request that the Board reverse the rejections of the Examiner.

A. Claim 1 is not anticipated by Nisizawa.

Claim 1 recites, in part, “an optical medium identification module associated with the optical drive and operable to illuminate an optical medium with a first of the plural lasers to detect identification information embedded on the optical medium that identifies the optical medium as associated with a second of the plural lasers.”

Nishizawa cannot anticipate Claim 1 because Nisizawa fails to teach, disclose or suggest all elements recited by Claim 1. Nishizawa does not read identification information to determine an optical medium type but rather looks at focus and tracking errors. If a focus error signal from an IR or red laser is smaller than a predetermined level, Nishizawa determines that the optical medium is a high density medium and the laser for the high density medium is initiated (*see e.g.*, paragraph [138]). The DVD or IR laser does not read identification information from the high density medium. Rather, once the focus error signal is detected as smaller than the predetermined level, the high density laser is initiated to read information from the high density medium. In contrast, Claim 1 recites that a first laser detects “identification information embedded on the optical medium that identifies the optical medium as associated with a second

of the plural lasers.” As is explained in Applicants’ written description, EDI is disposed so that a red laser can read it and identify the optical medium for use by the blue laser (pg. 6, line 19 – pg. 7, line 16). Since Nishizawa does not read identification information with the IR or red laser that relates to the high density laser, Nishizawa cannot anticipate Claim 1. Accordingly, Applicants respectfully request that the Board reverse the Examiner’s rejections and allow Claims 1-9.

B. Claim 10 is not anticipated by Nishizawa.

Claim 10 recites, in part, “attempting with the first laser to read identification information from the optical medium that is associated with a second of the plural lasers; initiating use of the second laser according to the identification information if the attempt to read the identification information with the first laser succeeds.”

Nishizawa cannot anticipate Claim 10 for the reasons set forth with respect to Claim 1 since Claim 10 recites a “read” of identification information with a first laser. In addition, Claim 10 recites “initiating use of the second laser according to the identification information,” another aspect missing from Nishizawa. Accordingly, Applicants respectfully request that the Board reverse the Examiner’s rejections and allow Claims 10-15.

B. Claim 16 is not anticipated by Nishizawa.

Claim 16 recites, in part, “embedded identification information disposed for reading by a second laser, the identification information identifying the optical medium as associated with the first laser.”

Nishizawa cannot anticipate Claim 16 for the reasons set forth with respect to Claim 1 since Claim 16 recites identification information disposed for “reading” with a second laser that identifies the optical medium as associated with the first laser. Applicants’ written description at pg. 7, lines 1-17, set forth parameters that make identification information on an optical medium readable by both a blue and a red laser. Accordingly, Applicants respectfully request that the Board reverse the Examiner’s rejections and allow Claims 16-20.

VIII. CLAIMS APPENDIX - 37 CFR § 41.37(c)(1)(viii)

A copy of the pending claims involved in the appeal is attached as Appendix A.

IX. EVIDENCE APPENDIX - 37 CFR § 41.37(c)(1)(ix)

None

X. RELATED PROCEEDINGS APPENDIX - 37 CFR § 41.37(c)(1)(x)

There are no related proceedings.

XI. CONCLUSION

For the reasons set forth above, Applicant respectfully submits that the rejection of pending Claims 1-20 is unfounded, and requests that the rejection of claims 1-20 be reversed.

The Commissioner is authorized to deduct any fees which may be necessary and to credit any overpayment to Deposit Account No. 502264.

I hereby certify that this correspondence is being electronically submitted to the COMMISSIONER FOR PATENTS via EFS on March 26, 2007.

/Robert W. Holland/

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Respectfully submitted,

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CLAIMS APPENDIX A

1. An information handling system comprising:
plural components operable to process information;
an optical drive interfaced with the plural components and operable to communicate information between the plural components and an optical medium, the optical drive having plural lasers, each laser associated with a type of optical medium;
and
an optical medium identification module associated with the optical drive and operable to illuminate an optical medium with a first of the plural lasers to detect identification information embedded on the optical medium that identifies the optical medium as associated with a second of the plural lasers.
2. The information handling system of Claim 1 wherein the first laser comprises a red laser and the second laser comprises a blue laser.
3. The information handling system of Claim 2 wherein the optical medium identification module is further operable to initiate use of the blue laser for the optical medium if the red laser detects the identification information associated with the blue laser.
4. The information handling system of Claim 2 wherein the optical medium identification module is further operable to perform a DVD detection algorithm if the red laser fails to detect the identification information associated with the blue laser.
5. The information handling system of Claim 4 wherein the plural lasers further comprise an infrared (IR) laser and the optical medium identification module is further operable to perform a CD detection algorithm with the IR laser if the DVD detection algorithm fails to identify the optical medium as a DVD.
6. The information handling system of Claim 1 wherein the first laser comprises an IR laser and the second laser comprises a blue laser.

7. The information handling system of Claim 6 wherein the optical medium identification module is further operable to initiate use of the blue laser for the optical medium if the IR laser detects the identification information associated with the blue laser.

8. The information handling system of Claim 7 wherein the optical medium identification module is further operable to perform a CD detection algorithm if the IR laser fails to detect the identification information associated with the blue laser.

9. The information handling system of Claim 8 wherein the plural lasers further comprise a red laser and the optical medium identification module is further operable to perform a DVD detection algorithm with the red laser if the CD detection algorithm fails to identify the optical medium as a CD.

10. A method for identifying an optical medium inserted into an optical drive having plural lasers, the method comprising:
selecting a first of the plural lasers to illuminate the optical medium;
attempting with the first laser to read identification information from the optical medium that is associated with a second of the plural lasers;
initiating use of the second laser according to the identification information if the attempt to read the identification information with the first laser succeeds; and
performing a detection algorithm with the first laser if the attempt to read the identification information fails, the first laser detection algorithm attempting to identify the optical medium as associated with the first laser.

11. The method of Claim 10 further comprising:
initiating use of the first laser if the first laser detection algorithm succeeds;
performing a detection algorithm with a third laser if the first laser detection algorithm fails, the third laser detection algorithm attempting to identify the optical medium as associated with the third laser.

12. The method of Claim 11 wherein the first laser comprises a red laser, the second laser comprises a blue laser and the third laser comprises an IR laser.

13. The method of Claim 11 wherein the first laser comprises an IR laser, the second laser comprises a blue laser and the third laser comprises a red laser.

14. The method of Claim 11 wherein the optical medium associated with the first laser comprises a DVD and the optical medium associated with the third laser comprises a CD.

15. The method of Claim 11 wherein the optical medium associated with the first laser comprises a CD and the optical medium associated with the third laser comprises a DVD.

16. An optical medium comprising:
a data layer operable to store data readable by a first laser;
a protective surface disposed over the optical medium;
embedded identification information disposed for reading by a second laser, the
identification information identifying the optical medium as associated with the
first laser.

17. The optical medium of Claim 16 wherein the identification information is embedded on the protective surface.

18. The optical medium of Claim 16 wherein the first laser comprises a blue laser and the second laser comprises an IR laser.

19. The optical medium of Claim 16 wherein the first laser comprises a blue laser and the second laser comprises a red laser.

20. The optical medium of Claim 19 wherein the identification information is embedded in the data layer as a frequency modulated band having a width of approximately .5 mm and having bit cells of a length of approximately .3 mm long.

EVIDENCE APPENDIX

None

RELATED PROCEEDINGS APPENDIX

There are no related proceedings.